

What Is Claimed Is:

1. An image processing device, comprising:
an input part to which image data represented by a plurality of colors including black is input;
a black area detector that detects a black area in the image data; and
an output part that adds color materials, except a black material, of a predetermined amount to the black area regardless of contents of the image data in a background of the black area and outputs the color materials and the black material.

2. An image processing device, comprising:
an input part to which image data represented by a plurality of colors including black is input;
a black area detector that detects a black area in the image data;
an edge detector that detects an edge of the black area; and
an output part that adds color materials, except a black material, of an amount according to colors in the periphery of the edge to the edge, adds the color materials, except the black material, of a predetermined amount to the black area except the edge regardless of contents of the image data in a background of the black area, and outputs the color materials and the black material.

3. An image processing device according to Claim 2, further comprising:

an adjuster that adjusts the amount of the color materials except the black material added to the edge in case a total amount of the color materials and the black material to be output to the edge exceeds a predetermined amount.

4. An image processing device according to Claim 1, wherein the output part is based upon primary colors of black (K), yellow (Y), magenta (M) and cyan (C); and an amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40% (percentage by weight) of the amount of the black material.

5. An image processing device according to Claim 4, further comprising:

a reduction unit that reduces the amount of the color material of the Y, M, C, keeping the amount of the black material in case a total amount of the color materials of K, Y, M, C exceeds a predetermined value.

6. An image processing method, comprising the steps of:
inputting image data represented by a plurality of colors including black;

detecting a black area in the image data; and

adding color materials, except a black material, of a predetermined amount to the black area regardless of contents of the image data in a background of the black area and outputting the color materials and the black material.

7. An image processing device, comprising:

an input part to which image data represented by a plurality of colors including black is input;

a black area detector that detects a black area in the image data;

an image determination unit that determines a type of an image in each area in the image data; and

an output part that adds color materials, except a black material, of a predetermined amount to an area determined to hold a predetermined type by the image determination unit and detected as a black area by the black area detector regardless of contents of the image data in a background of the black area and outputs the color materials and the black material.

8. An image processing device according to Claim 7, wherein the output part adds color materials, except the black material, of a predetermined amount to an area determined to hold a character by the image determination unit and detected as a black area by the black area detector regardless of contents of the image data in a background of the black area and outputs the color materials and a black material.

9. An image processing method, comprising the steps of:
inputting image data represented by a plurality of colors including black; and

adding color materials, except a black material, of a predetermined amount to an area determined to hold a predetermined image type and detected as a black area from among areas in the image data regardless of contents of the image data in a background of the black area and outputting the color materials and the black material.